

Midwest Forensics Resource Center

Quarterly Update

July 15, 2012

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To view past issues of the MFRC Newsletter, please visit www.ameslab.gov/mfrc and log into Partners Vweb. If you need help accessing the Partners site, please contact the MFRC office at 515-296-MFRC or email mfrc@ameslab.gov.

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News



Participants at the 2012 Midwest Crime Laboratory Directors Meeting held in Columbus, OH on May 15-17, 2012.



A panel discussion is led by Bill Marbaker at the 2012 Midwest Crime Laboratory Directors Meeting held in Columbus, OH on May 15-17, 2012.

MFRC Annual Meeting:

The MFRC Annual Meeting and the Midwest Crime Laboratory Directors meeting were held on May 15-17, 2012 in Columbus, OH. Attendees participated in seminars and discussions during the day and enjoyed networking in the evenings.

Summer internship program:

Four undergraduate students are taking part in the U.S. Department of Energy sponsored Science Undergraduate Laboratory Internships (SULI) program at the Ames Laboratory and working with MFRC staff on forensic science research projects. A fifth student is participating through the Community College Internships (CCI) program. The programs create opportunities for students to do research at Department of Energy Laboratories in a 10-week paid internship program. The students are working with MFRC staff on research projects related to blood spatter mechanisms, spectral ink analysis, and advanced metal fracture component matching methods.

Casework Assistance

The MFRC currently receives a constant level of requests for referrals for services. We welcome these inquiries, as well as any requests for other types of consultation or analyses. In addition to providing referrals to existing services, this program is designed to provide free access to new expertise and instrumentation.

If you would like more information, or to discuss the casework assistance program, please let us know. We would be happy to discuss the pro-

gram, answer any questions you may have, and walk through the process with you. Stan Bajic, the Casework Assistance Coordinator, can be reached at 515-294-2086 or via email at sjbajic@ameslab.gov.



Casework Assistance by the MFRC

Training

Training during the last quarter:

Best Practices in Forensic Science

Management

This class took place June 5-8 2012, in Omaha, Nebraska. It attracted 25 participants from 14 states and 23 forensic labs. The participants came from civilian and sworn organizations, state labs, large-city police departments, metro-area sheriff's offices, and smaller community law enforcement laboratory units. The class included laboratory directors, multi-section managers, unit heads, group leaders, and senior bench scientists.

The management series is intended for those considering the transition from analyst to manager, those who are making the transition, or those who are new to crime laboratory management. The current mix of participants enriched the class's group conversations and mutual-education efforts.

The class addresses the changing duties of individuals who make the transition from analyst to supervisor/manager, and the new skills he or she will need. It describes the role of the manager in a laboratory, the fundamentals of staff management, the management of time and manpower, fiscal and budgetary management, ethics, and techniques of delegation.

The instructors for the class are Dr. Anthony Hendrickson and Laura Mizaur. Dr. Hendrickson is the Dean of the College of Business at



Dr. Anthony Hendrickson,
instructor for the 2012 Best
Practices in Forensic
Science Management class.



Laura Mizaur, instructor for the
2012 Best Practices in Forensic
Science Management class.

Creighton University where he is also Professor of Information Systems Management. Laura Mizaur is a licensed CPA, who teaches courses in Accounting, Management, and Innovation in the College of Business Administration at Creighton University. Dr. Hendrickson developed the class for the MFRC on the basis of laboratory director requests and inputs.

Upcoming Training:

The next class to be offered is the advanced portion of the "Best Practices in Forensic Science Management." This class is scheduled for September 11-13, in Omaha, Nebraska. This class is already filled. For more information, please contact Melinda Schlosser at 515-296-6372 or mschlosser@ameslab.gov.

MFRC Training and Professional

Development Program Summary:

The MFRC recently published a brief history of its forensic science training programs. This document provides a ten year picture of the 73 forensic science training classes the MFRC has sponsored. One section of the document is a chronological list of classes and yearly progress while the other contains sample course outlines.

If you are interested in the document, it is available on the MFRC training website under the download link. The MFRC training website is: <http://www.ameslab.gov/mfrc/training>.

Education

Dr. Richard Bleil, a Chemistry Professor at Dakota State University who was developing a forensic science program, has taken a new position as the Director of the Rapid City Police Forensic Science Lab. He can be reached at Richard.Bleil@RCGov.org or by phone at 605-480-3265. Richard joins that small community of men and women in the Midwest who bridge university and forensic laboratory in their professional experience.

Matthew Gammette of the Idaho State Police is hosting a web-based forensic science forum for the Midwest and the nation. His first presenter was Dwight Stoll, Assistant Professor in Chemistry at Gustavus Adolphus College (St. Peter, MN). Dr. Stoll discussed "Development of

Rapid LC/MS/MS based methods for Confirmatory Analysis of Opiates and Benzodiazepines."

The next speaker will be Professor Chuck Cornett from the University of Wisconsin (Platteville, Wisconsin). He will be discussing "Fast GC and Hydrogen Mobile Phases: Implementation." Links with more details for the webinars of Matthew's evolving program can be found on the MFRC website home page, <http://www.ameslab.gov/mfrc>.

If you have input or suggestions for educational efforts, please contact Todd Zdorkowski at 515-294-5640 or zdorkowski@ameslab.gov.

R & D Programs

We are currently funding three new research projects:

“Chemical Characterization of Emerging Designer Drugs” (Jeremiah Morris, Johnson County Sheriff's Office Crime Lab). The project monitors and analyzes emerging designer drugs to provide forensic drug chemists with the analytical data necessary to identify synthetic cannabinoids and substituted cathinones.

“Development of a New Model to Study Firearms Related Blood Spatter” (Michael Taylor, ESR, New Zealand, and Kevin Winer, Kansas City Police Crime Lab). This project focuses on the design and construction of a physical model to simulate the formation of gunshot-related blood spatter to answer case-related questions. It is our first international project funded with NIJ money.

“Random Probability Match Procedure for Statistical Comparison of Mass Spectral Data” (Ruth Waddell-Smith, Michigan State Uni-

versity, Jack Hurd, Alaska Scientific Crime Detection Lab, and Garth Glassburg, Northeastern Illinois Regional Crime Lab). This project targets the development of a method to determine the significance of associations in the comparison of evidence.

Research results and findings of these three projects, and the five projects completed since issuance of the 2011 Research and Development Program Summaries will be highlighted in the upcoming 2012 version of the booklet. Anybody interested in receiving a copy of the 2012 booklet, please contact Rudi Luyendijk at 515-294-2931 or rluyendi@ameslab.gov.

Projects highlighted provide a description of the innovative technology or new tool, the need the project addresses, its experimental design and methodology, partners and collaborators, as well as accomplishments made, benefits derived, and findings presented. Also included is a brief discussion of plans to continue the research project or to implement the new technology or tool.

Technical Innovations in Management & Infrastructure (TIMI)

In collaboration with Iowa State University and the Bureau of Criminal Apprehension (BCA) Forensic Science Lab in St. Paul, MN, we started a project called “Automating Crime Laboratory Evidence Submission.” The project targets the development of an expert system to improve the intake of evidence at crime laboratories and to reduce the need for follow-up phone calls.

The Pls recently developed a prototype of the expert system for Drug Evidence submittal. As building blocks, the Pls used the methodology currently in use by the BCA supplemented by actual evidence intake information received from BCA evidence technicians. The Web-Based

Evidence Submission Expert System was uploaded for preliminary feedback for Drug Evidence by forensic scientists at MNBCA. The Expert System sections for the other forensic disciplines have been drafted for evaluation.

The feedback was used to make adjustments and to draft Expert System sections for the other forensic disciplines. A meeting is currently planned with the MNBCA on how the Expert System can be improved and to identify critical elements that frequently are missing in evidence submissions. It is hoped that law enforcement agencies will participate in the discussions.

Contact the MFRC

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